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730.235 COMPLETE SPECIFICATION

1 SHEET

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6B-05-1958

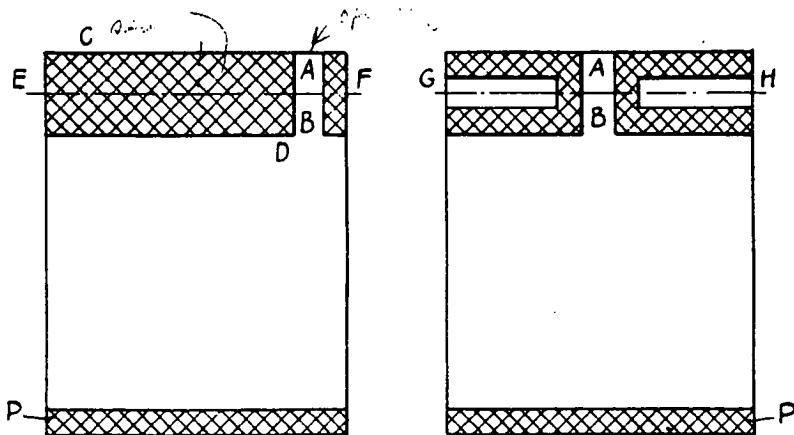


Fig.1.

Fig.2.

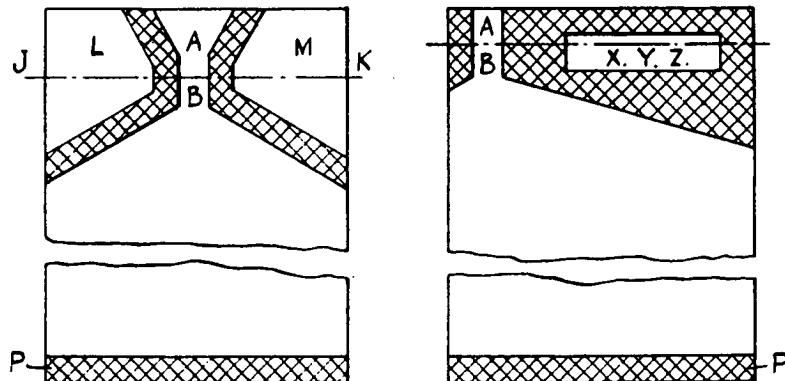


Fig.3.

Fig.4.

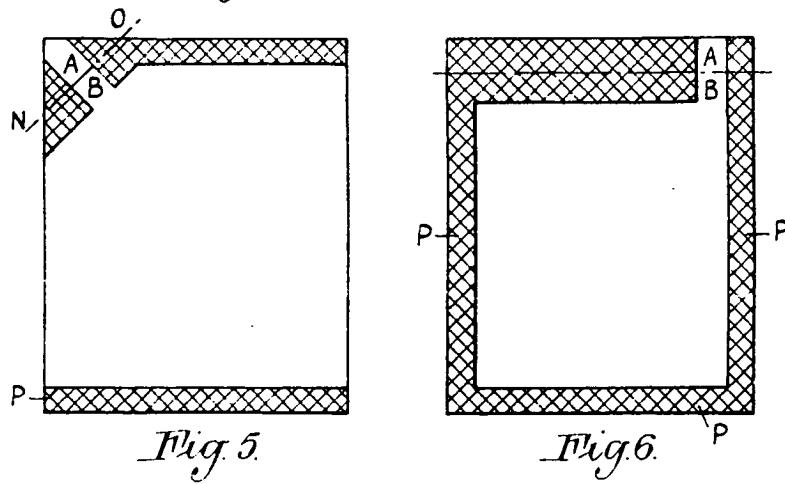


Fig.5.

Fig.6.

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PATENT SPECIFICATION



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Div. 40

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COMPLETE SPECIFICATION

Improvements in or relating to Bags, Sachets and the like intended to contain Flowable Materials

We, CELOPHANE INVESTMENT COMPANY LIMITED, a Company organised and existing under the Laws of Alderney, Channel Islands, of Alderney, Channel Islands, do 5 hereby declare the invention for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement :—

10 This invention relates to bags, sachets and the like intended to contain flowable materials and particularly to flat bags, sachets and the like made essentially of artificial film material. It is known to provide flat bags, sachets and

15 the like of thermoplastic film material such as polyethylene, plasticised polyvinyl chloride or rubber hydrochloride, such bags or sachets serving as containers for materials of varied types. They may be used as 20 containers for liquids, pastes, powders and like flowable materials since they may readily be hermetically sealed by welding together the adjacent surfaces of the thermoplastic material at the opening of the bag or sachet.

Such sealed bags or sachets can be opened for example by cutting the material of the bag or sachet with scissors or a knife. The contents can then be removed, but since the 30 bag or sachet cannot readily be re-sealed it is usually necessary to remove the whole of the contents. Such bags or sachets therefore are of little value where it is desired to use only part of their contents at one time.

35 Nevertheless, it is very often desirable to use a material, so wrapped, in small quantities and over long intervals of time and an object of the present invention is to provide a new form of bag, sachet or the like which makes 40 this readily possible. A further object of the invention is to provide a form of bag, sachet or the like which is not only readily sealed and unsealed as required, but which is very readily filled and emptied.

45 According to the present invention a bag

having a tubular body made from a thermoplastic material comprises a hot-pressed transverse band which completely closes one end of the body and a further hot-pressed transverse band which closes the other end of the body except for a relatively short part which constitutes a passage communicating with the interior of the bag, the width of said further band around said passage, in the axial direction of said passage, being at least twice the width of the passage therethrough to permit the material of the band to be folded over itself to close said passage.

Bags, sachets or the like formed of thermoplastic material are prepared by a continuous process in which the molten thermoplastic material is extruded in the form of a tube and set to tubular film form by cooling. The bottom of the bag or sachet is formed 65 by a transverse seal effected by means of a hot-press or by analogous apparatus. A transverse cut spaced away from the seal separates a length of the tube, sealed at one end and open at the other. The bag or 70 sachet is then filled and sealed across the open end by hot-pressing. This procedure is preferably followed in the preparation of bags or sachets according to the present invention with the essential difference, however, that in effecting the closure seal a short length is left unsealed, constituting a narrow opening.

The bag or sachet may be filled with liquid, paste, powder or other flowable material 80 via this opening and is then closed by folding over the margin of the bag or sachet in which the opening occurs and holding the fold by a removable fastening, e.g., a spring clip or adhesive band. The fold has the effect of 85 closing the opening and thus sealing the bag or sachet, but by removing the fastening and undoing the fold the opening is re-made and part or all of the contents of the bag or sachet can be removed. If only part is 90

removed and the bag or sachet is therefore to be kept, the margin is again folded over and the fold fastened.

Forms of bag or sachet constructed according to the invention are illustrated in the accompanying drawings in which Figs. 1 to 6 illustrate different embodiments in sectional elevation. In these drawings the sealed portions are shown in cross-hatching.

10 In Fig. 1 the sheets of thermoplastic material are sealed along the base at P and also at the top in the areas C and D, leaving an opening AB. The upper edge is capable of being folded along the line EF.

15 Fig. 2 illustrates a similar construction with the opening AB centrally in the top and with the greater part of the fold line GH left unsealed; this variation facilitates the folding operation along line GH.

20 In Fig. 3 the channel AB left unsealed is funnel-shaped at each end to facilitate the filling and emptying of the container. The fold is effected along line JK. The zones L and M are left unsealed but can be sealed 25 if desired.

Fig. 4 illustrates an alternative construction in which the opening is funnel-shaped on the inside so as to facilitate emptying the bag or sachet. This construction is of particular 30 value where the bag or sachet is long and straight.

In Fig. 5 the opening is made at a corner and the fold is effected along the line NO.

Fig. 6 illustrates an alternative construction 35 in which the bag or sachet is formed from two superimposed sheets of film, the sealing extending along the side margins. Otherwise this construction is similar to that of Fig. 1.

40 Bags and sachets constructed according to the present invention have the important advantages already indicated, and they are readily handled since the seal which almost wholly closes the structure imparts rigidity 45 thereto.

The method of producing the bags or sachets described above is capable of sub-

stantial variation. Thus, instead of using a continuous tube of film, or two sheets of film in superposition, there may be used a 50 single sheet of film folded over and sealed at the margins opposite the fold.

The sealing may be effected with a press which prints a design to be included, for example, as shown at XYZ in Fig. 4. 55

What we claim is:—

1. A bag having a tubular body made from a thermoplastic material and comprising a hot-pressed transverse band which completely closes one end of the body and a 60 further hot-pressed transverse band which closes the other end of the body except for a relatively short part which constitutes a passage communicating with the interior of the bag, the width of said further band around 65 said passage, in the axial direction of said passage, being at least twice the width of the passage therethrough to permit the material of the band to be folded over on itself to close said passage. 70

2. A flat bag, sachet or the like according to Claim 1 wherein along the main part of the line of the fold the faces of the bag are not sealed together.

3. A flat bag, sachet or the like according 75 to any of the preceding claims wherein the sealing is so effected that the opening widens in funnel shape towards the interior of the bag or sachet.

4. A flat bag, sachet, or the like according 80 to any of the preceding claims wherein the sealing is so effected that the opening widens in funnel shape towards the exterior of the bag or sachet.

5. A flat bag, sachet or the like substantially 85 as hereinbefore described with reference to any one of Figs. 1 to 6 of the accompanying drawings.

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